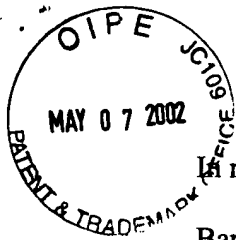


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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Barrett, Jr.

Serial No. 09/436,387

Filed: February 7, 2000

For: **GUIDED BULLET**

Attorney Docket No. 4419-001

B. Gregory
Primary Examiner
Art Unit 3662

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April 29, 2002
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Supplemental Appeal Brief

By the Order of February 28, 2002, the Board of Patent Appeals and Interferences directed Appellant to file this Supplemental Brief addressing the impact on the instant appeal of the recent case Pannu v. Storz Instruments, Inc., 258 F.3d 1366, 59 USPQ2d 1597 (Fed. Cir. 2001).

Pannu is a classic recapture case. The claims at issue were directed to an intraocular lens, which is an artificial plastic lens that may be implanted in an eye to replace a natural lens. Original claim 1 of the '953 application was directed to an intraocular lens. The intraocular lens includes two or more haptics. In claim 1 of the '953 application, there were no claimed limitations relating to the shape of the haptics of the lens.

Claim 1 of the '953 application was rejected. Applicant canceled claim 1 and all pending claims and added a new claim 16. New claim 16 was directed to the same

intraocular lens. In particular, the Applicant raised six arguments for the patentability of claim 16, including the distinction of “a continuous substantially-circular arc having a diameter greater than the diameter of the lens body” Claim 16 issued as claim 1 of U.S. Patent No. 4,435,855 (‘855 patent).

Thereafter, the Applicant filed a reissue application and the reissue application included claims directed to the same intraocular lens. However, in the case of the reissue claim, the Applicant omitted the limitations relating to the shape of the haptics. Indeed, the Examiner allowed the Applicant to delete “defining a continuous, substantially-circular arc having a diameter greater than the diameter of said lens body... .” There was no doubt that the reissue claim was broader and that the broader aspects of the reissue claim related directly to the surrendered subject matter.

In the present case, Applicant’s reissue claims are directed to an entirely different invention from that defined by the claims in the underlying patent, U.S. Patent No. 5,788,178 (the ‘178 patent). In short, the broadened aspects of the reissue claims in this case do not relate in any way to the surrendered subject matter. To illustrate, attention is directed to the two independent claims, claims 1 and 11, of the ‘178 patent and to the reissue claims 30 and 32.

Claim 1 of the '178 patent is shown below with the amended subject matter being underlined.

1. A bullet guidance system for guiding an in-flight bullet along an optimum trajectory along which said bullet would impact a laser-identified target, said system comprising:

laser beam detecting means contained within said bullet and being capable of receiving laser beam energy reflected from said target and converting said energy to electrical impulses;

logic circuit means contained within said bullet having means therein responsive to receipt of said impulses for determining the deviation of said bullet from said optimum trajectory and or generating corrective signals in response to said impulses;

steering control means having means therein responsive to said corrective signals in a manner to actuate said steering control means so as to deflect air flow about said bullet, said control means including at least deployable flap means being outwardly extensible from said bullet to deflect air flow about said bullet to impart a correctional momentum to translate said bullet to said optimum trajectory, said bullet being fired from a precision, smooth-bored weapon thereby not imparting axial spin to said bullet in the manner of a rifle; and

power supply means contained within said bullet being interconnectable to said logic circuit and said steering control means to provide sufficient electrical power to produce the functions required by said system.

Claim 32 of the reissue application, which is also an apparatus claim, appears below.

32. A pistol or rifle bullet having an onboard system for determining the orientation of the bullet with respect to a target comprising:

at least two light detectors carried on board the bullet for sensing light reflected off the target and each light detector generating an electrical signal that is a function of the intensity of the reflected light sensed; and

an onboard logic circuit for (1) comparing the electrical signals of each light detector and (2) producing an output signal that is a function of the reorientation of the light detectors required to cause the generated electrical signals of the light detectors to approach or equal each other.

The basic differences between claim 1 of the '178 patent and claim 32 of the reissue application are clear. Claim 1 of the '178 patent relates to a bullet guidance system and includes the basic elements of a laser beam detecting means, logic circuit

means, steering control means, and power supply means. This is to be compared with claim 32 of the reissue application. Here the claim subject matter is totally different. Claim 32 is not directed to a bullet guidance system. To the contrary, claim 32 is directed to an on-board system for determining the orientation of the bullet with respect to a target. Note that claim 32 does not even claim a steering control means nor a power supply means. In addition, as claimed in reissue claim 32, there is no recitation of laser beam detecting means. Claim 32 does recite at least two light detectors carried on board the bullet for sensing light reflected off the target with each light detector generating an electrical signal that is a function of the intensity of the reflected light sensed. That was not claimed in claim 1 of the '178 patent. Here this element is more narrow than any element of claim 1 of the '178 patent, particularly in the sense that the claim now recites that the generated electrical signal is a function of the intensity of the reflected light sensed. Further, the on-board logic circuit defined in claim 32 of the reissue application calls for the logic circuit to compare the electric signals of each light detector and to produce an output signal that is a function of the reorientation of the light detectors required to cause the generated electrical signals of the light detectors to approach or equal each other. Again, those limitations, as recited, are not found in claim 1 of the '178 patent. Therefore, to that extent, claim 32 of the reissue application is more narrow than claim 1 of the '178 patent.

Importantly, claim 32 of the reissue application has nothing whatsoever to do with steering the bullet. It is basically aimed at the invention that deals with determining the orientation of the bullet with respect to the target. Further, the claim has nothing to do with firing the bullet or guiding the bullet. The claim is directed to the light detectors and

the portion of the on-board logic circuit that determines the orientation of the bullet with respect to the target. Consequently, claim 32 of the reissue application does not recapture anything that was surrendered during the prosecution of the '178 patent. The claims and the inventions involved are totally different.

The same can be said with respect to the method claims involved. Appearing below is claim 11 of the '178 patent.

11. A method of guiding an in-flight bullet along an optimum trajectory to a laser-identified target, said bullet including a self-contained guidance system including laser detection means capable of receiving laser beam energy and converting said energy to electrical impulses, logic circuit means responsive to receipt of said impulses for determining the deviation of said bullet from said optimum trajectory and for generating corrective signals in response to said electrical impulses for actuating steering control means in a manner to deflect air flow about said bullet thereby effecting a corrective momentum to translate said bullet to said optimum trajectory, said method comprising the steps of:

- illuminating the target with a laser;
- firing said bullet from a precision sniper rifle having a smooth internal bore at said target;
- detecting laser beam energy reflected from said target using laser sensors;
- converting said energy to electrical impulses;
- determining the deviation of said bullet from said trajectory by analysis of said electrical impulses;
- generating corrective signals in response to said electrical impulses; and
- actuating said steering control means in response to said corrective signals in a manner to deflect air flow about said bullet to impart a correctional momentum to said bullet whereby said bullet is translated toward said optimum trajectory to impact said target.

The reissue application includes a method claim also. Claim 30 of the reissue application is as follows:

30. A method of generating signals on board a pistol or rifle bullet that indicates the general orientation of the bullet relative to a target comprising:

sensing the reflection of light reflected off the target by at least two light detectors carried on the bullet;

each light detector generating an electrical signal that is a function of the intensity of the reflected light sensed by that light detector; and

comparing, on board the bullet, the electrical signals of each light detector and producing an output signal that is a function of the bullet reorientation required to cause the generated electrical signals to approximate or equal each other.

Again, as discussed above, the inventions are very different and reissue claim 30 does not recapture any subject matter surrendered in any claim of the '178 patent and particularly does not recapture anything surrendered in claim 11 of the '178 patent.

As indicated in claim 11 of the '178 patent, the claim included a step of firing the bullet. The claim was amended to recite that the bullet was fired from a precision sniper rifle having a smooth internal bore.

Claim 30 does not in any way relate to firing a bullet or how the bullet is fired, etc. Claim 30 is directed solely to a method of generating signals on board the bullet that indicate the general orientation of the bullet relative to the target. Thus, claim 30 does not even relate to guiding the bullet. Further, claim 30 is even more narrow than claim 11 of the '178 patent. For example, in claim 30 there is the recitation that each light detector generates an electrical signal that is a function of the intensity of the reflected light sensed by the light detectors. That is certainly not claimed or found in claim 11 of the '178 patent. Further, claim 30 in the reissue application claims comparing, on board the bullet, the electrical signals of each light detector and producing an output signal that is a function of the bullet reorientation required to cause the generated electrical signals to approximate or equal each other. Again, this element of claim 30 sets forth numerous limitations that are not found in claim 11 of the '178 patent.

Importantly, claim 30 of the reissue application does not recite anything relating to firing the bullet. The claim is solely directed to generating signals that indicate the general orientation of the bullet relative to the target. Therefore, there is no recapture of any subject matter given up in the prosecution of the '178 patent. Indeed, consistent with the Clement analysis outlined in Applicant's opening Brief, the broadened aspects of the reissue claims do not relate to any surrendered subject matter.

Thus, with respect to the Pannu case, it is respectfully urged that Pannu is a straight-forward classical recapture case that does not alter pre-existing law with respect to the recapture rule in reissue practice. In short, Pannu even cites Clement and other basic cases in the recapture area.

As pointed out in Applicant's Reply Brief, there is one disturbing occurrence that has surfaced in this appeal. This relates to the new issues that have been raised by the Examiner in response to Applicant's opening Appeal Brief. As the Board will appreciate from reviewing the file history of this case, and particularly the Office Actions of the Examiner, the basic position of the Examiner from the outset was that, in every reissue claim, the applicant must include every limitation that was added during prosecution of the underlying patent. That was basically the law as espoused by the Examiner in this case. There was never an issue raised concerning the use of the term "pistol" or "rifle" as now set forth in the preamble to the reissue claims. Applicant never had an opportunity to respond to that rejection and position by the Examiner. To entertain this position by the Examiner at this late date is highly prejudicial and certainly unfair.

Notwithstanding, the whole argument is a red herring. The use of "pistol" and "rifle" in the preamble was simply to denote that the Applicant was referring to a bullet

of the type associated with a rifle or a pistol, and it was done to make sure that it was understood that the Applicant was talking about a bullet fired from a hand weapon or a shoulder-supported weapon as opposed to a guided missile, for example.

It is respectfully urged that the rejections lodged by the Examiner in this case should be reversed.

Respectfully submitted,

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